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6 UNITED STATES DISTRICT COURT
7 FOR THE NORTHERN DISTRICT OF CALIFORNIA
8 OAKLAND DIVISION
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10 SPECTROS CORP.,

11 Plaintiff,

12 vs.

13 THERMO FISHER SCIENTIFIC d/b/a
14 NANO DROP,

15 Defendant.
16

Case No: C 09-01996 SBA

**ORDER GRANTING
DEFENDANT'S MOTION FOR
SUMMARY JUDGMENT**

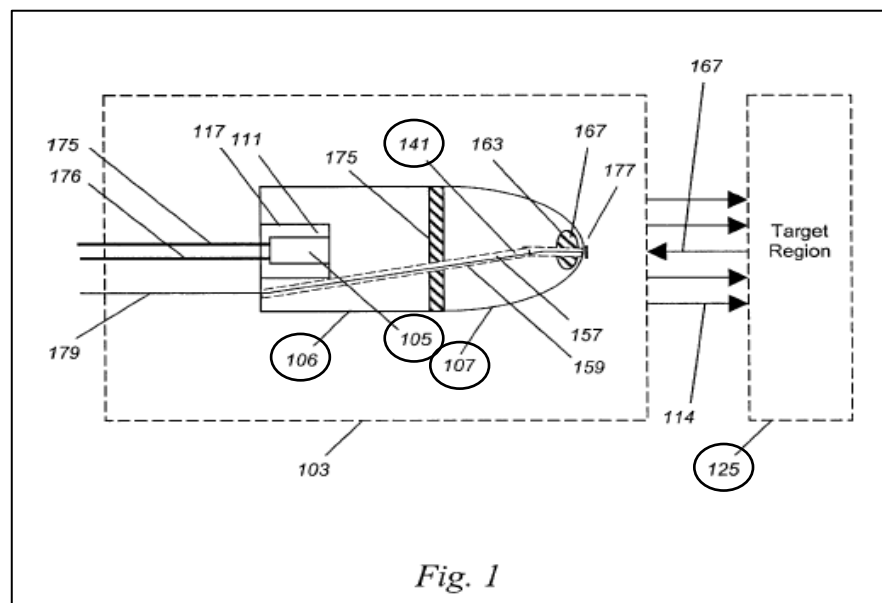
Docket 80

17 Plaintiff Spectros Corporation ("Spectros") brings the instant patent infringement
18 action against Defendant Thermo Fisher Scientific ("Thermo Scientific"), alleging that
19 Thermo Fisher's NanoDrop 3300 spectrometer ("NanoDrop" or "accused device")
20 infringes United States Patent No. 6,711,426 ("the '426 patent" or "patent-in-suit"). The
21 parties are presently before the Court on Defendant Thermo Fisher's Motion for Summary
22 Judgment of Non-Infringement. Dkt. 80. Having read and considered the papers filed in
23 connection with this matter and being fully informed, the Court hereby GRANTS the
24 motion for the reasons set forth below. The Court, in its discretion, finds this matter
25 suitable for resolution without oral argument. See Fed. R. Civ. P. 78(b); N.D. Cal. Civ.
26 L.R. 7-1(b).
27
28

I. BACKGROUND

A. OVERVIEW OF THE '426 PATENT

Spectros is the assignee of the '426 patent, which is entitled "Spectroscopy Illuminator with Improved Delivery Efficiency for High Optical Density and Reduced Thermal Load." Am. Compl. ¶ 6 and Ex. A ("426 Patent"), Dkt. 62. The patent was issued by the United States Patent and Trademark Office ("PTO") on March 23, 2004. Id. The '426 patent describes an "illuminator" that generates broadband light and delivers that light efficiently to a target tissue sample with minimal heat transfer. '426 Patent, Cover Sheet. Because it remains cool during operation, this illuminator is suitable for use in the tip of a medical probe or other monitoring system employed in heat-sensitive environments.



Id.

Figure One, reproduced above, shows one of seven exemplary embodiments of the invention. Id. at fig.1 (ovals added). This embodiment shows the entire illuminating device (103). The illuminating device contains a white LED light source (105) powered by two electrical connections (175 and 176). The LED light source is embedded into a plastic beam-shaping mount (106). The mount has a shaped lens (107). Light passes through the lens to reach the target region (125), which is not itself part of the illuminating device. A

portion of the light reaching the target region will be scattered and reflected. That light is collected by a light collection fiber (141).

B. THE INSTANT ACTION AND REEXAMINATION OF THE ‘426 PATENT

On May 6, 2009, Spectros filed the instant patent infringement action against Thermo Fisher, claiming that the NanoDrop infringes Claims 1, 2, 3, and 4 of the ‘426 patent. Compl. ¶ 8, Dkt. 1. After timely filing its Answer, Dkt. 19, Thermo Fisher filed a request for inter partes reexamination with the PTO on September 15, 2009. Dkt. 28-1. Shortly thereafter, Thermo Fisher moved the Court to stay this case pending the outcome of the reexamination. Dkt. 27. The Court granted Thermo Fisher’s motion, over Spectros’s objection, and stayed the case on January 20, 2010. Dkt. 41.

On April 19, 2011, the PTO issued a reexamination certificate finally cancelling Claims 1-10 and 24-32 of the ‘426 patent, but confirming the validity of Claims 11-23. Inter Partes Reexamination Certificate, Dkt. 62-2. Since the PTO was canceling the only claims alleged in its Complaint, Spectros moved for leave to file a First Amended Complaint (“FAC”). Dkt. 50. The Court granted Spectros’ motion and Spectros filed a FAC on May 5, 2011. Dkt. 62. In its FAC, Spectros now alleges that Thermo Fisher, by manufacturing, using and/or selling its NanoDrop, infringes only Claim 19. FAC ¶ 9.

Claim 19 of the ‘426 patent is dependent on Claim 1. Incorporating the limitations of Claim 1, Claim 19 reads as follows:

An improved broadband spectroscopy illuminator comprising:

[a] a broadband light source and

[b] an optical coupling means for coupling the light source to a target region,

[c] said source and optical coupling means configured and arranged to achieve an improved efficiency of delivery to said region with a high optical density of at least 1 mW/cm² and a low transferable thermal load of no more than 100 mW heat per mW usable optical power delivered,

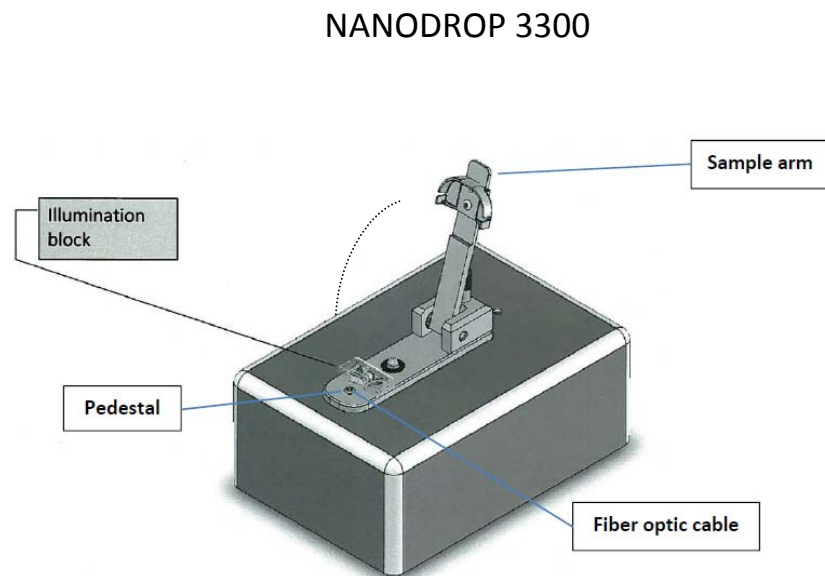
[d] wherein said illuminator further comprises a light collection fiber, said light collection fiber integrated into said illuminator and optically coupled to said target region.

‘426 patent, col. 27, ln. 7-17; col. 28, ln. 20-23 (emphasis added to denote claim terms construed by the Court).

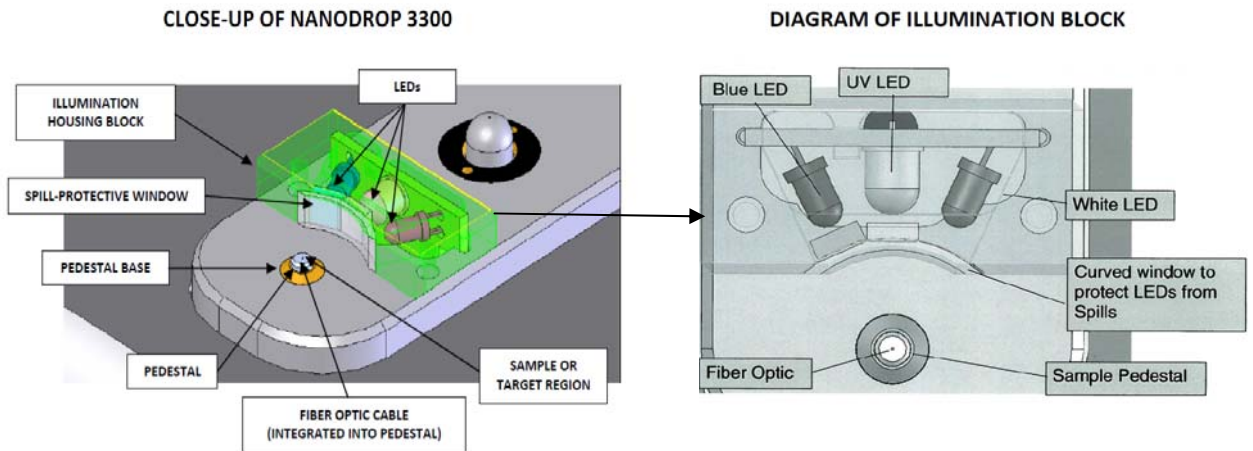
On December 7, 2011, the Court held a claims construction hearing to address the following disputed claim terms: (1) “illuminator”; (2) “light collection fiber”; (3) “integrated into said illuminator”; and (4) “optical coupling means for coupling the light source to a target region.” Dkt. 76. The Court issued its order construing some, but not all, of these terms the following day. Id.

C. THE ACCUSED DEVICE: NANODROP 3300

The accused device in this action is Thermo Fisher’s NanoDrop. FAC ¶ 9; Pl.’s Disclosure at 2. The structure of the accused product is not in dispute. The NanoDrop is a table-top device that is used to perform spectrofluorometric analysis of extremely small liquid samples. The NanoDrop has the capacity to analyze miniscule amounts of liquid by using the surface tension of the sample itself to hold the sample in place during analysis. Hirsch Decl. ¶¶ 6-7, Dkt. 58-2.¹ The NanoDrop includes the following components: the illumination block, the pedestal, the sample arm, the fiber optic cable, and the detector. Hirsch Decl. ¶¶ 3-7.



¹ This technology is the subject of U.S. Patent No. 6,628,382 (“the ‘382 patent”)



To use the NanoDrop, the operator typically uses a pipette to deposit the sample on the pedestal at the front of the instrument. Id. ¶ 3. The pivoting sample arm is then lowered to contact the sample, and then is raised slightly to form the sample into a “column.” Id. ¶ 7. The column is maintained by the tension of the sample itself. Id. While in this position, the sample is illuminated by the three light emitting diodes or LEDs (blue, white and ultraviolet). Id. Light reflected by the sample is then collected by the fiber optic cable, which is embedded in the middle of the pedestal and then transmitted to the detector located within and below the surface of the instrument. Id. ¶ 5, 7. The intensity of the light transmitted to the detector is then used as data in further analysis. ‘382 patent, col. 3, ln. 43-67; col. 4, ln. 1-11.

The LEDs are contained in the illumination block mounted on the surface of the instrument. Id. ¶ 5. The LEDs are arranged behind a curved window to protect them from spills. Id. The light passes from the illumination block, through the spill-protective window, to the sample. Id. The only purpose of the illumination block is to generate light to illuminate the sample. Id. ¶¶ 3, 7. The illumination block does not contain any fiber that collects light. Id. ¶ 8. The pedestal also is mounted on the surface of the device, but is situated on the device separate and apart from the illumination block. Id. ¶¶ 3-6. Specifically, the illumination block and the pedestal are separated by the spill-protective window and free space. Id. The pedestal provides the surface on which the sample—a small droplet of liquid—is deposited by pipette. Id. ¶ 3. The sample is kept in place by the

1 sample arm, which can be raised and lowered. When lowered, it contacts the sample. *Id.*
2 ¶¶ 3, 7.

3 **D. THE INSTANT MOTION**

4 With the disputed claims terms having been construed, Thermo Fisher now moves
5 for summary judgment of non-infringement. Thermo Fisher contends that the NanoDrop
6 does not infringe the patent-in-suit either literally or under the doctrine of equivalents.
7 Spectros and Thermo Fisher timely filed an opposition and reply, respectively. Dkt. 93, 94.
8 The matter has been fully briefed and is ripe for adjudication.

9 **II. LEGAL STANDARD**

10 Summary judgment is appropriate if there is no genuine dispute as to any material
11 fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a);
12 Celotex Corp. v. Catrett, 477 U.S. 317, 322-23 (1986). “A fact is ‘material’ if it may affect
13 the outcome of the proceedings, and [a dispute] of material fact is ‘genuine’ if the evidence
14 is such that a reasonable jury could return a verdict for the non-moving party.” Wavetronix
15 LLC v. EIS Elec. Integrated Sys., 573 F.3d 1343, 1354 (Fed. Cir. 2009) (alteration to
16 conform to 2010 amendment to Rule 56) (citing Anderson v. Liberty Lobby, Inc., 477 U.S.
17 242, 248 (1986)).

18 The party moving for summary judgment “has the initial responsibility of
19 identifying the legal basis of its motion, and of pointing to those portions of the record that
20 it believes demonstrate the absence of a genuine issue of material fact.” Novartis Corp. v.
21 Ben Venue Labs., Inc., 271 F.3d 1043, 1046 (Fed. Cir. 2001) (citing Celotex, 477 U.S. at
22 323). Once the moving party makes this showing, “the burden shifts to the nonmovant to
23 designate specific facts showing that there is a genuine issue for trial.” *Id.* “Since the
24 ultimate burden of proving infringement rests with the patentee, an accused infringer
25 seeking summary judgment of noninfringement may meet its initial responsibility either by
26 providing evidence that would preclude a finding of infringement, or by showing that the
27 evidence on file fails to establish a material issue of fact essential to the patentee’s case.”
28 Novartis Corp. v. Ben Venue Labs., Inc., 271 F.3d 1043, 1046 (Fed. Cir. 2001).

1 **III. DISCUSSION**

2 “The infringement analysis is a two step inquiry. ‘First, the court determines the
3 scope and meaning of the patent claims asserted, and then the properly construed claims are
4 compared to the allegedly infringing device.’” Cordis Corp. v. Boston Scientific Corp., 658
5 F.3d 1347, 1354 (Fed. Cir. 2011) (citing Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448,
6 1454 (Fed. Cir. 1998) (en banc)). Infringement may be proven by literal infringement, or
7 under the doctrine of equivalents. Gen. Elec. Co. v. Int’l Trade Com’n, 670 F.3d 1206,
8 1214 (Fed. Cir. 2012).

9 The parties agree that the central issue before the Court is whether the NanoDrop has
10 an “illuminator” that has a “light collection fiber” “integrated into” it. Opp’n at 2; Reply at
11 1. At the claims construction hearing, the Court construed both “illuminator” and “light
12 collection fiber.” 12/8/11 Order re Claim Construction, Dkt. 76. The Court construed these
13 terms as follows:

- 14 1. “illuminator” is construed as: “That portion of a device
15 that generates broadband light and delivers that light to a target
16 region or sample.”
- 17 2. “light collection fiber” is construed as “A fiber that
18 collects light from the target region or sample.”
3. “integrated into said illuminator” does not require
construction.

19 Id.² Having thus resolved the first step of the infringement analysis, the Court now turns to
20 whether the NanoDrop infringes the ‘426 patent, either literally or under the doctrine of
21 equivalents.

22 **A. LITERAL INFRINGEMENT**

23 A claim is “literally infringed” if each properly construed claim element directly
24 reads on the accused product or process. See Jeneric/Pentron Inc. v. Dillon Co., 205 F.3d
25 1377, 1382 (Fed. Cir. 2000). If any claim limitation is absent from the accused device,

26 _____
27 ² With regard to “integrated into said illuminator,” for purposes of its infringement
28 analysis, the Court will interpret said claim limitation according to the ordinary and
customary meaning of “integrated into” and the Court’s construction of “illuminator.”
Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).

1 there is no literal infringement as a matter of law. Amgen Inc. v. F. Hoffman-LA Roche
2 Ltd., 580 F.3d 1340, 1374 (Fed. Cir. 2009). “[A] literal infringement issue is properly
3 decided upon summary judgment when no genuine issue of material fact exists, in
4 particular, when no reasonable jury could find that every limitation recited in the properly
5 construed claim either is or is not found in the accused device.” Bai v. L & L Wings, Inc.,
6 160 F.3d 1350, 1353 (Fed. Cir. 1998).

7 Thermo Fisher contends that Claim 19 of the ‘426 patent is not infringed because the
8 NanoDrop’s “illuminator” does not include a “light collection fiber” that “collects light
9 from the target region or sample.” Mot. at 10-13; see Order re Claim Construction. The
10 Court agrees. The record presented shows that the NanoDrop generates broadband light
11 through one or more of the LEDs housed within the “illumination block.” Hirsch Decl. ¶ 5.
12 The portion of the NanoDrop delivering light to the target region or sample is the spill-
13 protective window and free space between the LEDs and the target. Id. In other words,
14 under this Court’s construction of the term “illuminator,” the NanoDrop’s “illuminator” is
15 that portion of the NanoDrop that incorporates the LEDs and the spill-protective window
16 and the free space between the LEDs and the target, through which light must pass before
17 reaching the target to which it is delivered.

18 Given the structure of the NanoDrop, which is not disputed by Spectros, it is clear
19 that the NanoDrop does not have a “light collection fiber” that is “integrated into said
20 illuminator”—as specified in the ‘426 patent. See Order re Claims Construction. When the
21 NanoDrop is operated, the sample arm is lowered to contact the sample, and then is raised
22 to form the sample into a “column.” Hirsch Decl. ¶ 7. The column is maintained by the
23 tension of the sample itself. Id. While in this position, the sample is illuminated by the
24 LEDs. Id. The light from the sample is then collected by the fiber optic cable located in
25 the pedestal, and transmitted to the detector. Id. As Dr. Hirsch’s unrefuted testimony and
26 the drawings below illustrate, the light collection fiber is not integrated into any portion of
27 the instrument that generates light or delivers it to the sample.
28

1 The light collection fiber shown in the Figure One of the ‘426 patent is integrated in
2 the illuminator—it passes through a channel within the illuminator and, as a result, must be
3 coated with a black coating to shield the collection fiber from “stray light from source 105
4 within the body of illuminator 103.” ‘426 patent, col. 9, ln. 8-10. Moreover, the purpose of
5 the light collection fiber in figure 1 is to “collect returning light 128 [sic], reflected or
6 scattered from target 125, and returning to fiber 141 at the target or patient end of
7 illuminator 103.” Id. col. 9, ln. 20-22. In contrast, in the NanoDrop 3300, the light
8 collection fiber is integrated in the pedestal, which is separate and apart from the
9 “illuminator,” and does not collect light returning to the illuminator. Instead, it collects
10 light traveling away from the illuminator which then passes through the sample; the light
11 ultimately is collected by the optical fiber and sent to the detector for spectrofluorometric
12 analysis. Hirsch Decl. ¶ 7.

13 Spectros argues that the “illuminator” in the NanoDrop “should be found to include
14 the platform that houses the fiber optic cable and enables delivery of light to the target
15 region or sample.” Opp’n at 5 (emphasis added). In that regard, Spectros argues that the
16 NanoDrop’s pedestal “is similar to the mount 106 in Figure 1 of the ‘426 patent that holds
17 the LED and fiber optic [cable].” Id.

18 Spectros’ argument fails on multiple levels. First, Spectros ignores that the pedestal
19 in the NanoDrop does not contain any LEDs, and neither generates nor delivers light to the
20 sample. In addition, the fiber optic cable embedded in the pedestal is completely separate
21 from the LEDs providing the light source for the sample. Second, Spectros’ argument
22 ignores the Court’s prior construction of the term “illuminator” as used in the ‘426 patent.
23 During the claims construction proceedings, Spectros argued that “illuminator” could
24 include a stand-alone device that enables the delivery of light. E.g., Spectros Cl. Constr.
25 Reply at 2-3, Dkt. 72. Rejecting Spectros’ overly-broad and untenable interpretation of
26 illuminator, the Court construed that term to mean “[t]hat portion of a device that generates
27 broadband light and delivers that light to a target region or sample.” Order re Claims
28 Construction (emphasis added). Stated another way, the illuminator in Claim 19 is limited

1 to that portion of the device that either generates or delivers broadband light. Under
2 Spectros' interpretation, however, the illuminator would include the casing or "platform"
3 on which the pedestal containing the fiber optic cable and the illumination housing block
4 sit; i.e., the entire NanoDrop device. Such an interpretation is unsupported and is contrary
5 to the Court's construction of the term "illuminator."

6 The Court finds that there is no genuine dispute that Thermo Fisher's NanoDrop
7 does not have a light collection fiber integrated into an illuminator, as the term
8 "illuminator" has been construed. Thus, Thermo Fisher does not literally infringe claim 19
9 of the '426 patent.

10 **B. DOCTRINE OF EQUIVALENTS**

11 Even where an accused device does not literally infringe, a patentee may prove
12 infringement under the doctrine of equivalents. See Kemco Sales, Inc. v. Control Papers
13 Co., 208 F.3d 1352, 1364 (Fed.Cir. 2000). Infringement may be found under the doctrine
14 of equivalents only "if every limitation of the asserted claim, or its 'equivalent,' is found in
15 the accused subject matter, where an 'equivalent' differs from the claimed limitation only
16 insubstantially." Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 149 F.3d 1309, 1315
17 (Fed. Cir. 1998). To oppose a defendant's motion for summary judgment of non-
18 infringement under the doctrine of equivalents, the plaintiff has the burden of producing
19 "particularized testimony and linking argument on a limitation-by-limitation basis that
20 create[s] a genuine issue of material fact as to equivalents." AquaTex Indus., Inc. v.
21 Techniche Solutions, 479 F.3d 1320, 1328-29 (Fed. Cir. 2007). Like a claim of literal
22 infringement, a claim of infringement under the doctrine of equivalents may be decided on
23 summary judgment. See Bai, 160 F.3d at 1353.

24 Spectros contends that the NanoDrop infringes the '426 patent under the doctrine of
25 equivalents on the ground that the fiber optic cable used in the NanoDrop is only "a mere
26 inch" from the illumination block and serves the same function as the fiber optic cable used
27 in the patent. Opp'n at 7. As an initial matter, Spectros is procedurally barred from
28 asserting infringement based on the doctrine of equivalents. This district has adopted

1 Patent Local Rules that “require parties to state early in the litigation and with specificity
2 their contentions with respect to infringement and invalidity.” O2 Micro Int’l, Ltd. v.
3 Monolithic Power Sys., Inc., 467 F.3d 1355, 1359 (Fed. Cir. 2006). In its Disclosure of
4 Asserted Claims and Infringement Contentions served on May 24, 2011 under Patent Local
5 Rule 3-1, Spectros specifically represented that it was alleging a claim for literal
6 infringement. Stier Decl. Ex. A at 2, Dkt. 81-1. While Spectros purported to “reserve[] the
7 right to supplement its allegation of infringement under the doctrine of equivalents ...
8 should additional facts supporting such allegations be discovered,” id., Spectros never
9 amended its infringement contentions to include such a claim, Stier Decl. ¶ 4. As such,
10 Spectros cannot proceed on a claim based on the doctrine of equivalents. See MEMC Elec.
11 Materials v. Mitsubishi Materials Silicon Corp., No. C 01-4925 SBA, 2004 WL 5363616,
12 at *5 (N.D. Cal. Mar. 2, 2004) (Armstrong, J.).

13 The above notwithstanding, Spectros’ contention that the NanoDrop infringes the
14 patent-in-suit under the doctrine of equivalents fails on the merits. Spectros’ generalized
15 assertions that the accused device and patent-in-suit use a fiber optic cable in a similar
16 manner are insufficient to show infringement. See Abbott Lab. v. Sandoz, Inc., 566 F.3d
17 1282, 1296 (Fed. Cir. 2009) (“Infringement analysis under the doctrine of equivalents
18 proceeds element-by-element; a generalized showing of equivalency between the claim as a
19 whole and the allegedly infringing product or process is not sufficient to show
20 infringement.”). Spectros also ignores that the NanoDrop lacks a critical claim element; to
21 wit, an illuminator that incorporates a light collection fiber. Under the “all elements rule,”
22 the doctrine of equivalents does not apply if its application “would vitiate an entire claim
23 limitation.” Asyst Techs., Inc. v. Emtrak, Inc., 402 F.3d 1188, 1195 (Fed. Cir. 2005).
24 Moreover, Spectros’ contentions prove nothing. Regardless of the proximity of the fiber
25 optic cable to the illumination block, the fact remains that it is not integrated in the
26 illuminator. For all of these reasons, the Court finds that that the NanoDrop does not
27 infringe the ‘426 patent under the doctrine of equivalents.
28

1 **IV. CONCLUSION**

2 For the reasons stated above,


3 IT IS HEREBY ORDERED THAT:

4 1. Defendant Thermo Fisher's motion for summary judgment of non-
5 infringement is GRANTED.

6 2. The Clerk shall close the file and terminate all pending matters and vacate all
7 deadlines.

8 IT IS SO ORDERED.

9 Dated: May 30, 2012


SAUNDRA BROWN ARMSTRONG
United States District Judge